

thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, a carboxyl group, or an alkylsilyl or alkylsilylalkyl group having from 3 to 30 carbon atoms, and R's may be the same or different, and may be optionally bonded to each other to form a cyclic structure; a represents 0, 1 or 2; and n and m each represent an integer of at least 1.


40. (New) A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of Claim 16.

#### REMARKS

Claims 1-40 are active in the present application. Claims 5-10, 12, 17-22, and 24 have been amended to remove multiple dependencies. New Claims 25-40 have been added. Support for new Claims 25-40 is found in the original Claims 1-24. No new matter is added. An action on the merits and allowance of claims is solicited.

Respectfully submitted,

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5. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 1 to 4] Claim 1, wherein at least one of three R<sup>1</sup>'s is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

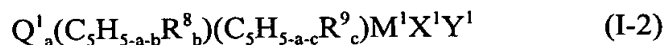
6. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 1 to 4] Claim 1, wherein three R<sup>1</sup>'s are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

7. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 1 to 4] Claim 1, wherein three R<sup>1</sup>'s are all phenyl groups.

8. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 1 to 7] Claim 1, wherein R<sup>2</sup> is an alkyl group having at least 2 carbon atoms.

9. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 3 to 8] Claim 1, wherein Z is aluminium.

10. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 1 to 9] Claim 1, wherein the transition metal compound (A) is represented by any of the following general formulae (I-2) to (I-6):



in which  $Q^1$  represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands ( $C_5H_{5-a-b}R^8_b$ ) and ( $C_5H_{5-a-c}R^9_c$ );  $Q^2$  represents a bonding group that crosslinks the conjugated five-membered cyclic ligand ( $C_5H_{5-a-d}R^{10}_d$ ) and the group  $Z^1$ ;  $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  each represent a hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure; a represents 0, 1 or 2; b, c and d each represent an integer of from 0 to 5 when a = 0, or an integer of from 0 to 4 when a = 1, or an integer of from 0 to 3 when a = 2; e is an integer of from 0 to 5;  $M^1$  represents a transition metal of Groups 4 to 6 of the Periodic Table;  $M^2$  represents a transition metal of Groups 8 to 10 of the Periodic Table;  $L^1$  and  $L^2$  each represent a coordination-bonding ligand;  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  each represent a covalent-bonding or ionic-bonding ligand; and  $L^1$ ,  $L^2$ ,  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  may be bonded to each other to form a cyclic structure.

12. (Amended) A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of [any of claims 1 to 11] Claim 1.

17. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 13 to 16] Claim 13, wherein at least one of three  $R^{31}$ 's is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

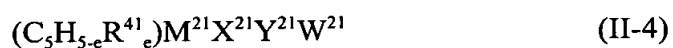
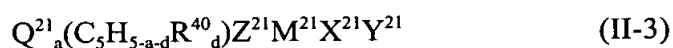
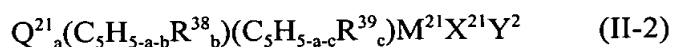
18. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 13 to 16] Claim 13, wherein three  $R^{31}$ 's are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

19. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 13 to 16] Claim 13, wherein three R<sup>31</sup>'s are all phenyl groups.

20. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 13 to 19] Claim 13, wherein R<sup>32</sup> is an alkyl group having at least 2 carbon atoms.

21. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 15 to 20] Claim 15, wherein Z is aluminium.

22. (Amended) The catalyst for polymerization of olefins as claimed in [any of claims 13 to 21] Claim 13, wherein the transition metal compound (A) is represented by any of the following general formulae (II-2) to (II-6):



in which Q<sup>21</sup> represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands (C<sub>5</sub>H<sub>5-a-b</sub>R<sup>38</sup><sub>b</sub>) and (C<sub>5</sub>H<sub>5-a-c</sub>R<sup>39</sup><sub>c</sub>); Q<sup>22</sup> represents a bonding group that crosslinks the conjugated five-membered cyclic ligand (C<sub>5</sub>H<sub>5-a-d</sub>R<sup>40</sup><sub>d</sub>) and the group Z<sup>21</sup>; R<sup>38</sup>, R<sup>39</sup>, R<sup>40</sup> and R<sup>41</sup> each represent a hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure; a represents 0, 1 or 2; b, c and d each represent an integer of from 0 to 5 when a = 0, or an integer of from 0 to 4 when a = 1, or an integer of from 0 to 3 when a = 2; e is an integer of from 0 to 5; M<sup>21</sup> represents a transition metal of Groups 4 to 6

of the Periodic Table;  $M^{22}$  represents a transition metal of Groups 8 to 10 of the Periodic Table;  $L^{21}$  and  $L^{22}$  each represent a coordination-bonding ligand;  $X^{21}$ ,  $Y^{21}$ ,  $Z^{21}$ ,  $W^{21}$  and  $U^{21}$  each represent a covalent-bonding or ionic-bonding ligand; and  $L^{21}$ ,  $L^{22}$ ,  $X^{21}$ ,  $Y^{21}$ ,  $Z^{21}$ ,  $W^{21}$  and  $U^{21}$  may be bonded to each other to form a cyclic structure.

24. (Amended) A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of [any of claims 13 to 23]

Claim 13.

Claims 25-40 (New).